

What is claimed is:

1. An interlock for a drawer positionable within a cabinet, the drawer being movable in the cabinet in a first direction toward an open position and in a second, opposite direction toward a closed position, said interlock comprising:
 - an elongated, flexible member;
 - a rotatable lever adapted to switch the amount of slack in said elongated, flexible member between a low slack condition and a high slack condition by rotating between a first and second position, respectively;
 - an engagement member attached to said drawer and positioned to cause said rotatable lever to rotate toward said first position when said drawer is initially moved from the closed position in the first direction; and
 - a biasing member positioned adjacent said lever, said biasing member adapted to exert a biasing force that tends to prevent said lever from rotating from said second position to said first position until said drawer is moved in said first direction to the open position.
2. The interlock of claim 1 wherein said biasing member is a spring.
3. The interlock of claim 2 wherein said spring is coupled to said lever.
4. The interlock of claim 1 wherein said elongated, flexible member is a cable.
5. The interlock of claim 1 wherein said elongated, flexible member is in communication with at least one other drawer interlock associated with another drawer, said at least one other drawer interlock adapted change said elongated, flexible member from the high slack to the low slack condition when the another drawer is moved to an open position.
6. The interlock of claim 1 wherein said elongated, flexible member is in communication with a lock, said lock adapted to selectively change said elongated, flexible member between said low and high slack conditions.

7. The interlock of claim 6 further including a second, elongated flexible member in communication with a second lock and said lever, said second lock adapted to selectively change said second elongated, flexible member between said low and high slack conditions.
8. The interlock of claim 1 wherein said lever and said biasing member are mounted on a drawer slide member, said drawer slide member mounted to said cabinet and adapted to allow said drawer to slide between said open and said closed position.
9. The interlock of claim 8 wherein said interlock is solely mounted to said drawer slide member such that removal of the drawer slide member from the cabinet also removes said interlock.
10. The interlock of claim 1 wherein said rotatable lever is configured to translate a first force exerted on the drawer in the first direction into a second force exerted against said elongated, flexible member that is less than said first force.
11. The interlock of claim 10 wherein said second force is less than one-half of said first force.
12. The interlock of claim 10 wherein said second force is less than one-fifth of said first force.
13. The interlock of claim 10 wherein said second force is less than one-twentieth of said first force.
14. The interlock of claim 12 wherein said interlock is secured to an end of a drawer slide in which said drawer slides between said open and said closed position.
15. The interlock of claim 4 further including a cable guide adapted to snap-fittingly receive the cable from at least one direction.

6. An interlock for a drawer positionable within a cabinet, the drawer being movable in the cabinet in a first direction toward an open position and in a second, opposite direction toward a closed position, said interlock comprising:

an elongated, flexible member adapted to be changeable between a high slack condition and a low slack condition; and

an actuating member positioned to be operatively engageable with said elongated, flexible member, said actuating member adapted to change said elongated, flexible member to said low slack position when the drawer is opened and to allow said elongated flexible member to exist in said high slack condition when the drawer is closed, said actuating member adapted to translate a first force exerted on said drawer in said first direction to a second force on said elongated, flexible member which is less than said first force.

17. The interlock of claim 16 wherein said actuating member comprises:

a rotatable lever adapted to alter the amount of slack in said elongated, flexible member, said lever being rotatable between a low slack position and a high slack position, said low slack position creating the low slack condition in said elongated, flexible member and said high slack position allowing said elongated, flexible member to exist in the high slack condition; and

an engagement member attached to said drawer and positioned to cause said rotatable lever to rotate to said low slack position when said drawer is initially moved in the first direction from the closed position.

18. The interlock of claim 17 further including a retainer adapted to retain said rotatable lever in said low slack position while said drawer is moved to said open position.

19. The interlock of claim 18 wherein said retainer includes a cam said cam member being coupled to said lever.

20. The interlock of claim 17 further including a spring that exerts a force on said lever that resists movement of said lever from said high slack position to said low slack position.

21. The interlock of claim 17 wherein said lever is prevented from rotating to said low slack position by said elongated, flexible member when said elongated, flexible member is in said low slack condition.
22. The interlock of claim 21 wherein said lever prevents said drawer from being moved to said open position when said lever is not in said low slack position.
23. The interlock of claim 22 wherein said elongated, flexible member is a cable.
24. The interlock of claim 23 wherein said second force is less than one-half of said first force.
25. The interlock of claim 23 wherein said second force is less than one-tenth of said first force.
26. The interlock of claim 24 wherein said cable is in communication with a lock, said lock adapted to selectively change said cable to said low slack condition such that said drawer is prevented from being moved to the open position when said cable is in said low slack condition.
27. The interlock of claim 23 wherein said cable is in communication with a lock, said lock adapted to selectively change said cable to said low slack condition such that said drawer is prevented from being moved to the open position when said cable is in said low slack condition.
28. The interlock of claim 18 wherein said lever and said retainer are mounted to a drawer slide in which said drawer slides between said open and said closed position.
29. A locking and interlocking system for a cabinet having a plurality of drawers, each of said drawers being movable in the cabinet in a first direction toward an open position and in a second, opposite direction toward a closed position, said system comprising:
a lock;

a first elongated, flexible member extending between at least first and second ones of said plurality of drawers, said first elongated, flexible member being changeable from a high slack condition to a low slack condition;

a second elongated, flexible member extending between said lock and said first drawer, said lock adapted to change said second elongated, flexible member from a high slack condition to a low slack condition;

a first interlock in communication with said first and second elongated, flexible members, said first interlock adapted to change both said first and second elongated, flexible members from the high slack condition to the low slack condition whenever said first drawer is opened, said first interlock adapted to prevent said first drawer from opening whenever said first or second elongated, flexible members are in said low slack condition; and

a second interlock in communication with said first elongated, flexible member, said second interlock adapted to change said first elongated, flexible member from the low slack to the high slack condition whenever said second drawer is opened, said second interlock adapted to prevent said second drawer from opening whenever said first elongated, flexible member is in said low slack condition.

30. The system of claim 29 further including a second lock and a third elongated, flexible member, said second lock adapted to change said third cable from a high slack condition to a low slack condition, said third elongated, flexible member extending between said second lock and said second drawer, said second interlock further being adapted to change said third elongated, flexible member from the high slack condition to the low slack condition whenever said second drawer is opened, said second interlock further adapted to prevent said second drawer from being opened whenever said third elongated, flexible member is in said low slack condition.

31. The system of claim 29 wherein said first interlock is mounted to a first drawer slide that slidingly supports said first drawer and said second interlock is mounted to a second drawer slide that slidingly supports said second drawer.

32. The system of claim 29 wherein said first and second elongated, flexible members are cables.

33. The system of claim 30 wherein said first interlock exerts a force against said first and second elongated, flexible members that is less than one-fifth of a force exerted against said first drawer in said first direction.

34. The system of claim 33 wherein said first interlock includes a biasing member that exerts a biasing force against said first and second elongated, flexible members whenever said first drawer is moved to said open position, said biasing force being substantially constant.

35. The system of claim 34 wherein said biasing member includes a spring.

36. The system of claim 31 wherein said first and second drawer slides are removable from said cabinet and said first and second interlocks are not attached to said cabinet other than by way of said drawer slides.

37. A cabinet having at least one drawer movable within the cabinet in a first direction toward an open position and in a second, opposite direction toward a closed position, said cabinet comprising:

- a frame adapted to support said drawer when positioned within the cabinet;
- an elongated, flexible member positioned within said cabinet, said elongated, flexible member changeable between a lower slack condition and a higher slack condition;

- an interlock positioned within said frame and in operative engagement with said elongated, flexible member, said interlock adapted to prevent said drawer from moving to said open position when said elongated, flexible member is in said lower slack condition and to allow said drawer to move to said open position when said elongated, flexible member is in said higher slack condition; and

- a slack take-up mechanism attached to said interlock and adapted to change said elongated, flexible member from said higher slack condition to said lower slack condition when the drawer is moved from the closed position to the open position, said slack take-up mechanism adapted to translate a first force exerted on the drawer in said first direction to a second force exerted on said elongated, flexible member which is less than said first force.

38. The cabinet of claim 57 wherein said elongated, flexible member is a cable.

39. The cabinet of claim 38 wherein said elongated, flexible member is in communication with a lock, said lock adapted to selectively change said elongated, flexible member between said lower and higher slack conditions.

40. The cabinet of claim 38 wherein said cable is in communication with at least one other drawer interlock associated with another drawer, said at least one other drawer interlock adapted to change said cable to said lower slack condition when the another drawer is moved to the open position.

41. The cabinet of claim 37 wherein said second force is less than one half of said first force.

42. The cabinet of claim 37 wherein said second force is less than one fifth of said first force.

43. The cabinet of claim 37 further including at least one drawer slide attached to said drawer, said drawer slide movable between an extended position corresponding to the attached drawer's open position and a retracted position corresponding to the attached drawer's closed position, said interlock mounted on said drawer slide and adapted to prevent said drawer slide from moving to said extended position when said elongated, flexible member is in said lower slack condition and to allow said drawer slide to move to said extended position when said elongated, flexible member is in said higher slack condition.

44. An interlock for a drawer positionable within a cabinet, said drawer being movable in the cabinet in a first direction toward an open position and in a second, opposite direction toward a closed position, said interlock comprising:

an elongated, flexible member;

a slack take-up mechanism engageable with said elongated, flexible member and movable between a higher slack position and a lower slack position, said higher slack position allowing said elongated, flexible member to exist in a higher slack condition, said lower slack position causing said elongated, flexible member to exist in a lower slack condition;

a cam operatively coupled to said slack take-up mechanism and to said drawer, said cam adapted to switch the slack take-up mechanism from the higher slack position to the lower slack position when the drawer is moved in the first direction; and

a biasing member adapted to exert a force against said take-up mechanism that urges said slack take-up mechanism toward said lower slack position.

45. The interlock of claim 44 wherein said biasing member is a spring.

46. The interlock of claim 45 wherein said force of said biasing member has a magnitude that is independent of the magnitude of a force exerted on the drawer in said first direction.

47. The interlock of claim 45 further including a stop that prevents said cam from switching said slack take-up mechanism from the higher slack position to the lower slack position when the elongated, flexible member is in said lower slack condition.

48. The interlock of claim 47 wherein said cam is adapted to prevent said drawer from being moved to said open position when said cam engages said stop.

49. The interlock of claim 46 wherein said slack take-up mechanism includes a slide movable in a linear direction generally parallel to said first direction, said slide including an engagement surface positioned to engage said cable.

50. The interlock of claim 47 wherein said stop is an embossment.

51. The interlock of claim 45 wherein said elongated, flexible member is a cable.

52. The interlock of claim 51 further including a cable guide attached adapted to snap-fittingly receive the cable from at least one direction.

53. The interlock of claim 52 wherein said cable is in communication with at least one other drawer interlock associated with another drawer, said at least one other drawer interlock adapted to change said cable to said lower slack condition when the another drawer is moved to an open position.

54. The interlock of claim 51 wherein said cable is in communication with a lock, said lock adapted to selectively change said cable between said lower and higher slack conditions.

55. The interlock of claim 54 wherein said cable is in communication with at least one other drawer interlock associated with another drawer, said at least one other drawer interlock adapted to change said cable to said lower slack condition when the another drawer is moved to an open position.

56. The interlock of claim 51 further including a second cable in communication with a lock, said lock adapted to selectively change said second cable between lower and higher slack conditions, said drawer being prevented from being moved to the open position when said second cable is in said lower slack condition, said second cable being in operative engagement with said slack take-up mechanism.

57. A cabinet having at least one drawer movable within the cabinet in a first direction toward an open position and in a second, opposite direction toward a closed position, said cabinet comprising:

- a frame adapted to support said drawer when positioned within the cabinet;

- an elongated, flexible member positioned within said cabinet, said elongated, flexible member changeable between a lower slack condition and a higher slack condition;

- an interlock positioned within said frame and in operative engagement with said elongated, flexible member, said interlock adapted to prevent said drawer from moving to said open position when said elongated, flexible member is in said lower slack condition and to allow said drawer to move to said open position when said elongated, flexible member is in said higher slack condition; and

- a slack take-up mechanism attached to said interlock and adapted to change said elongated, flexible member from said higher slack condition to said lower slack condition when the drawer is moved from the closed position to the open position, said slack take-up mechanism adapted to exert a force on said elongated, flexible member that has a magnitude which is independent of a force applied in said first direction to the drawer when said drawer is substantially closed.

58. The cabinet of claim 57 wherein said elongated, flexible member is a cable.
59. The cabinet of claim 57 wherein said elongated, flexible member is in communication with a lock, said lock adapted to selectively change said elongated, flexible member between said lower and higher slack conditions.
60. The cabinet of claim 58 wherein said cable is in communication with at least one other drawer interlock associated with another drawer, said at least one other drawer interlock adapted to change said cable to said lower slack condition when the another drawer is moved to the open position.
61. The cabinet of claim 58 wherein said slack take-up mechanism includes a slide movable in a linear direction generally parallel to said first direction, said slide including an engagement surface positioned to engage said cable.
62. The cabinet of claim 58 wherein said slack take-up mechanism includes a biasing member adapted to exert a force against said cable that urges said cable toward said lower slack position whenever the drawer associated with said interlock is moved to the open position.
63. The cabinet of claim 62 wherein said biasing member is a spring.
64. The cabinet of claim 57 further including at least one drawer slide attached to said drawer, said drawer slide movable between an extended position corresponding to the attached drawer's open position and a retracted position corresponding to the attached drawer's closed position, said interlock mounted on said drawer slide and adapted to prevent said drawer slide from moving to said extended position when said elongated, flexible member is in said lower slack condition and to allow said drawer slide to move to said extended position when said elongated, flexible member is in said higher slack condition.